PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Attitudes towards the New Zealand Government's Smokefree 2025 Goal associated with smoking and vaping in university students aged 18-24 years: results of a 2018 national cross-sectional survey.
AUTHORS	Wamamili, Ben; Wallace-Bell, Mark; Richardson, Ann; Grace, Randolph; Coope, Pat

VERSION 1 – REVIEW

REVIEWER	Sofia Ravara Faculty of Health Sciences, University of Beira Interior, Covilha, Portugal
REVIEW RETURNED	24-Feb-2020

GENERAL COMMENTS	GENERAL COMMENT This is a relevant study on the awareness and beliefs regarding the tobacco end game in New Zealand among University students. Major issues to be addressed follow: INTRODUCTION Authors should briefly describe the state of tobacco epidemic (including tobacco use and vaping by populations' sub-groups in the general population; and among university students) and tobacco control implementation in New Zealand (include regulation of e-cigarettes), as well explain the tobacco end game aim and goals. METHODS Authors should include a brief reference to ethics approval. Please give more information about the sampling strategy, so that reviewers and readership may judge the sample representativeness. For example how many universities exist in NZ, how the weighted sample was calculated, including the overall sampling strategy (for the universities and faculties) and within courses. Also, include here that was a convenient sample (this is acknowledged in the discussion, but should be presented here first) The statistical analysis should incorporate a multivariate analysis, to eliminate confounding and calculate factors associated with the main dependent variable, including contrasting this among ethnic groups and Māori, Pacific, Asian and European/Other students. Results regarding factors associated with smoke free goal attitudes should be expressed by adjusted ORs and 95% CI. Any survey measure of SES? This would be important. Authors stated that gender-specific analyses included only those who identified as male or female. This means that authors disaggregated data by sex and NOT gender. Please substitute

gender specific by sex-specific. Also every time in the manuscript where referring to gender should be sex.

What about EC- use or vaping? In the data analysis, this variable should be considered.

In the discussion, authors discuss that participants may smoke and vape (dual use). I suppose that is feasible to present the absolute and relative frequencies on dual use in the study population. Then, this variable (dual users) may be treated as an independent variable to assess associations between the dependent variables.

Authors should indicate the survey response rate and also the method for applying the survey (online, in the classroom, etc).

RESULTS

Authors should describe the sample more briefly, as for example: 92% non-Maori. No need to describe absolute and relative frequencies for Maoris, or for males etc in case of binary variables, since this is obvious. Just indicate the table.

Authors should present results on dual use here.

Include a multivariate analysis as it has been previously mentioned.

DISCUSSION

Authors only compare their results with other national studies, but should compare also with international studies on the same aim (may be on the awareness, support for tobacco end game. There is at least 1cross-country European study on this. Support for a tobacco endgame strategy in 18 European countries, Silvano Gallus et al, 2014).

ABSTRACT

Authors should modify the abstract accordingly to the major issues depicted above.

REVIEWER	Zubair Kabir
	University College Cork, Ireland
REVIEW RETURNED	27-Mar-2020

| GENERAL COMMENTS | - This paper is a follow-on paper of a recent paper published in the same journal in 2019 drawing on the same study population, with some identical findings (Table 1 and Table 2) of both the papers! I think the current paper could have been addressed in the previous paper that was published in 2019 (adding the prevalence of smoking/vaping element of the previous paper).
- The methods section needs elaboration rather than referring to this previous paper, especially in terms of 'weighting', study participant recruitment, and same size estimation
- A copy of the questionnaire could have been appended for ready reference to the reviewers
- Statistical analyses are pretty basic; a logistic regression modelling would have been more appropriate?
- The discussion piece is thin and superficial, for instance, potential explanations of the observations were not discussed critically. Why 'vaping' can help achieve the Smokefree 2025 goal has not been discussed at all!
- In the limitations, misclassification bias could have been mentioned |

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Reviewer Name: Sofia Ravara
Institution and Country: Faculty of Health Sciences, University of Beira Interior, Covilha, Portugal

Please state any competing interests or state 'None declared':
None
Please leave your comments for the authors below

GENERAL COMMENT
This is a relevant study on the awareness and beliefs regarding the tobacco end game in New Zealand among University students. Major issues to be addressed follow:

INTRODUCTION
Authors should briefly describe the state of tobacco epidemic (including tobacco use and vaping by populations' sub-groups in the general population; and among university students) and tobacco control implementation in New Zealand (include regulation of e-cigarettes), as well explain the tobacco end game aim and goals.
The manuscript has been revised accordingly.

METHODS
Authors should include a brief reference to ethics approval.
The following statement has been added in Method, "The study was reviewed and approved by the University of Canterbury Human Ethics Committee (research ethics ID: HEC 2017/42/LR-PS) and the University of Canterbury Māori Research Advisory Group."

Please give more information about the sampling strategy, so that reviewers and readership may judge the sample representativeness. For example how many universities exist in NZ, how the weighted sample was calculated, including the overall sampling strategy (for the universities and faculties) and within courses. Also, include here that was a convenient sample (this is acknowledged in the discussion, but should be presented here first).
More information about sampling and participants has been provided.

The statistical analysis should incorporate a multivariate analysis, to eliminate confounding and calculate factors associated with the main dependent variable, including contrasting this among ethnic groups and Māori, Pacific, Asian and European/Other students.
Logistic regression analysis has been used to examine the associations between responses about the Smokefree 2025 goal with smoking and vaping (current smoking, current vaping, dual use and neither current smoking nor current vaping), while controlling for age, sex and ethnicity.

We chose to use the two levels of the ethnicity variable, because of small numbers of Pasifika students.

Results regarding factors associated with smoke free goal attitudes should be expressed by adjusted ORs and 95% CI.
This has been done.

Any survey measure of SES? This would be important.
We did not include measure of socio-economic status in our survey and we have acknowledged this in the limitations.

Authors stated that gender-specific analyses included only those who identified as male or female. This means that authors disaggregated data by sex and NOT gender. Please substitute gender specific by sex-specific. Also every time in the manuscript where referring to gender should be sex.
This has been done.

What about EC- use or vaping? In the data analysis, this variable should be considered.
This has been done.

In the discussion, authors discuss that participants may smoke and vape (dual use). I suppose that is feasible to present the absolute and relative frequencies on dual use in the study population. Then, this variable (dual users) may be treated as an independent variable to assess associations between the dependent variables.

This has been done. Four variables on smoking and vaping have been created (i.e. current smoker and current vaper (dual user), current smoker and non-current vaper, current vaper and non-current smoker, and neither current smoker nor current vaper).

Authors should indicate the survey response rate and also the method for applying the survey (online, in the classroom, etc).
The original project from which the current dataset was obtained used a convenience sample of 2,180 participants because random sampling was not possible. This approach did not allow for estimation of the response rate.

The survey was administered online and in person (paper questionnaire). The online route allowed participants to click on a web link and complete the survey on a computer or smart phone. Paper questionnaires were distributed by research assistants (RAs) on campus (in libraries, cafes, halls of residence), who then collected completed questionnaires and sent them to us.

RESULTS
Authors should describe the sample more briefly, as for example: 92% non-Maori. No need to describe absolute and relative frequencies for Maoris, or for males etc in case of binary variables, since this is obvious. Just indicate the table.
This has been done.

Authors should present results on dual use here.
This has been done.

Include a multivariate analysis as it has been previously mentioned.
This has been done.

DISCUSSION
Authors only compare their results with other national studies, but should compare also with international studies on the same aim (may be on the awareness, support for tobacco end game.
There is at least 1cross-country European study on this. Support for a tobacco endgame strategy in 18 European countries, Silvano Gallus et al, 2014).
Thank you for highlighting this helpful study to us. We have compared our results with the results of the European study.

ABSTRACT
Authors should modify the abstract accordingly to the major issues depicted above.
This has been done.

Reviewer: 2
Reviewer Name: Zubair Kabir
Institution and Country: University College Cork, Ireland

Please state any competing interests or state 'None declared':
None declared

Please leave your comments for the authors below
- This paper is a follow-on paper of a recent paper published in the same journal in 2019 drawing on the same study population, with some identical findings (Table 1 and Table 2) of both the papers! I think the current paper could have been addressed in the previous paper that was published in 2019 (adding the prevalence of smoking/vaping element of the previous paper).
We chose to address the two areas (smoking and vaping) separately so we could provide more in depth discussions. Both areas had not been studied in university students at a national level in New Zealand, and few studies have investigated vaping in this region.

- The methods section needs elaboration rather than referring to this previous paper, especially in terms of 'weighting', study participant recruitment, and sample size estimation
This has been done.

- A copy of the questionnaire could have been appended for ready reference to the reviewers
This will be provided.

- Statistical analyses are pretty basic; a logistic regression modelling would have been more appropriate?
This has been done. We have used logistic regression models to assess the associations between responses about the Smokefree 2025 goal with smoking and vaping, while controlling for age, sex and ethnicity.

- The discussion piece is thin and superficial, for instance, potential explanations of the observations were not discussed critically. Why 'vaping' can help achieve the Smokefree 2025 goal has not been discussed at all!
If students are using vaping as a way to stop smoking tobacco cigarettes, then vaping may encourage cessation. This was the main reason for the new regulations in New Zealand to increase access to vaping.

- In the limitations, misclassification bias could have been mentioned
We have address this by creating four distinct variables: current smoker and current vaper (dual user), current smoker and non-current vaper, current vaper and non-current smoker, and neither current smoker nor current vaper.

References

1.   Wamamili, B., et al., *Electronic cigarette use among university students aged 18–24 years in New Zealand: results of a 2018 national cross-sectional survey.* BMJ Open, 2020. **10**(6): p. e035093.
2.   Wamamili, B., et al., *Cigarette smoking among university students aged 18–24 years in New Zealand: results of the first (baseline) of two national surveys.* BMJ Open, 2019. **9**(12): p. e032590.

VERSION 2 – REVIEW

REVIEWER	Sofia Ravara University of Beira Interior, Covilhã, Portugal.
REVIEW RETURNED	17-Sep-2020

GENERAL COMMENTS	The authors have largely adressed the reviewers' concerns. No further comments.